

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

8054-38 (LW9081US/CS)

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on _____

Signature _____

Typed or printed name _____

Application Number

10/779,524

Filed

February 13, 2004

First Named Inventor

Yong-Kuk Yun

Art Unit

1734

Examiner

Yewebdar T. Tadesse

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

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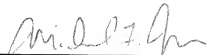
attorney or agent of record.

Registration number 44,952

☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____



Signature

Michael F. Morano

Typed or printed name

516-692-8888

Telephone number

March 12, 2007

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

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*Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Yong-Kuk YUN et al. EXAMINER: Yewebdar T. Tadesse
SERIAL NO.: 10/779,524 GROUP ART UNIT: 1734
FILED: February 13, 2004
FOR: APPARATUS FOR FORMING AN ORGANIC LAYER AND
METHOD OF FORMING AN ORGANIC LAYER

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

This paper is being filed with a Notice of Appeal Form (PTO/SB/31), and a Pre-Appeal Brief Request For Review Form (PTO/SB/33).

REMARKS

Please consider the following reasons for this Pre-Appeal Brief Request For Review.

Claims 1-11, 21, 22 and 25-30 are pending and stand rejected in the above-referenced application.

Claims 1-11, 21, 22 and 25-30 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 3-11, 21 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,660,332 ("Kawase '332") in view of European Patent Application Pub. No. EP 0754553 ("EP '553").

Claims 1-11, 21-22, 25-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. US2003/0186613 ("Kawase '613") in view of EP '553.

REJECTION UNDER 35 U.S.C. § 112

The Examiner maintains that in claims 1 and 22, "it is unclear relative to what element each head unit is shifting."

Applicants respectfully disagree. Claim 1 recites that "each head unit . . . is fixed in a position spaced apart from a previous head unit by a predetermined horizontal shift distance". Claim 22, recites "each head unit being disposed in a position spaced apart from a previous head unit by a predetermined horizontal shift distance".

The language "spaced apart from a previous head unit by" clearly indicates that the head units are shifted with respect to each other. Further, Applicants' specification,

at FIGS. 3-4, show the head units 300-1 . . . 300-n, wherein each successive head unit is spaced apart from a previous head unit by a horizontal shift distance d from the previous head unit, which is less than a pitch between nozzles 400.

Accordingly, Applicants submit that claims 1 and 22 are not indefinite, and submit that there are clear errors in the rejection under 35 U.S.C. § 112, second paragraph.

REJECTIONS UNDER 35 U.S.C. § 103

Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness with respect to the pending claims.

Kawase '332 and Kawase '613 Fail To Disclose A Multiple Of The Shift Distance Is Substantially Identical To The Pitch And The Pitch Being Substantially Identical To N Times The Predetermined Horizontal Shift Distance

Nowhere in Kawase '332 or Kawase '613 are there any statements outlining a relationship between shift distance and nozzle pitch. In Kawase '332, every visual reference to a difference from one position of the head unit 22 to another position of the head unit 22 shows a difference of position which is greater than a pitch between nozzles, not less than a pitch between nozzles. See, e.g., Kawase '332, FIGS. 1-4. Similarly, in Kawase '613, every visual reference to a difference between ejection start points of droplet ejection units (25A-25C) shows a difference which is greater than a pitch between nozzles, not less than a pitch between nozzles. See, e.g., Kawase '613, FIG. 9 (references P21, P22 and P23).

The Examiner maintains that Kawase '332 and '613 disclose devices that are capable of having the nozzle pitch is greater than the horizontal shift distance. The Examiner does not cite any support for this contention. Indeed, Examiner's conclusions are based entirely on speculation and hindsight gleaned from Applicants' disclosure.

Further, EP '553 does not disclose or suggest the claimed configuration. See Applicants' December 15, 2005 Amendment, at 7-8.

Accordingly, the Examiner has not adequately established that the cited references teach or suggest the claimed features.

There Is No Suggestion Or Motivation To Modify Kawase '332 Or Kawase '613 To Include A Nozzle Pitch That Is Greater Than The Horizontal Shift Distance

Embodiments of the present invention relate to an apparatus for forming an organic layer wherein the interval between the organic material drops is minimized to achieve uniformity of the organic layer. See, e.g., Applicants' disclosure ¶¶ 0011. The reduced interval is achieved by implementing a horizontal shift distance of head units that is less than the nozzle pitch.

The Cited References Teach Away From The Reduced Interval

Unlike the claimed embodiments, a stated objective of Kawase '332 and Kawase '613 is to avoid overlap of ink ejection start and end points. For example, Kawase '332 seeks to prevent dense lines from forming on a color filter at positions corresponding to ends of a nozzle line, where the amount of ink discharged is the greatest. See, e.g., Kawase '332, col. 2, lines 13-28; Figs. 1 and 3. Similarly, Kawase '613 seeks to achieve uniformity of a color filter by controlling the amount of ink deposited in colored areas by avoiding overlap of the end positions of nozzle rows. See, e.g., Kawase '613, ¶¶ 0018, 0131-0132; Figs. 3, 4 and 9.

Accordingly, Kawase '332 and Kawase '613 teach away from the claimed relationship between nozzle pitch and shift distance, which results in overlap between end positions of nozzle rows. Indeed, modifying Kawase '332 or Kawase '613 to include the claimed configuration would render Kawase '332 and Kawase '613

unsatisfactory for their intended purposes of forming a uniform color filter because the overlap of the nozzles would result in the dense lines that Kawase '332 and '613 seek to avoid.

The Cited References Are Not Analogous To The Claimed Embodiments

The embodiments of the present invention relate to an apparatus for forming an organic layer used to form a black matrix. See, e.g., Applicants' disclosure, ¶ 0005. A spraying device sprays the organic material, and includes a nozzle pitch that is greater than the horizontal shift distance in an effort to produce a uniform organic layer.

In contrast to the claimed embodiments, Kawase '332, Kawase '613 and EP '553 relate to ink ejecting apparatuses for manufacturing color filters, not spraying devices for spraying organic material to form a black matrix. Indeed, unlike the claimed embodiments, the ink ejecting apparatuses preferably avoid overlap to achieve uniformity of a color filter. Therefore, because of the differences between the cited references and the claimed embodiments, one of ordinary skill in the art would not look to the cited references to develop the claimed embodiments.

For at least the foregoing reasons, there are clear errors in the Examiner's rejections of claims 1-11, 21-22 and 25-30 under 35 U.S.C. § 103(a).

Respectfully submitted,



Michael F. Morano
Reg. No. 44,952
Attorney for Applicants

F. CHAU & ASSOCIATES, LLC
130 Woodbury Road
Woodbury, NY 11797
(516) 692-8888